ICF International / Laboratory Data Consultants
Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300; Fax: (510) 412-2304.

MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM) RF
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105041 Amendment 7

DATE: January 8, 2008

SUBJECT: Review of Analytical Data, **Tier 2**

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	Not Provided
SDG No.:	IPI0104
Laboratory:	Test America Analytical Testing Corp.
Analysis:	1,2,3-Trichloropropane (1,2,3-TCP)
Samples:	6 Water Samples (see Case Summary)
Collection Date:	September 1, 2006
Reviewer:	Santiago Lee, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: [X] Yes [ ] No

Data Validation Report – **Tier 2**

Case No.: Not Provided
SDG No.: IPI0104
Site: Omega Chem OU2
Laboratory: Test America Analytical Testing Corp.
Reviewer: Santiago Lee, ESAT/LDC
Date: January 8, 2008

I. CASE SUMMARY

Sample Information

Samples:	OC2-MW20C-W-0-234, OC2-MW20B-W-0-235, OC2-MW20A-W-0-236, OC2-MW20A-W-1-237, OC2-MW9B-W-0-238, and OC2-MW9A-W-0-239
Concentration and Matrix:	Low Concentration Water
Analysis:	1,2,3-TCP (GC/MS)
Method:	EPA Method 524.2
Collection Date:	September 1, 2006
Sample Receipt Date:	September 1, 2006
Extraction Date:	September 11 and 12, 2006
Analysis Date:	September 11 and 12, 2006

Field QC

Field Blanks (FB):	Not Provided
Trip Blanks (TB):	Not Provided
Equipment Blanks (EB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	OC2-MW20A-W-0-236 and OC2-MW20A-W-1-237

Laboratory QC

Method Blanks & Associated Samples:

C6I1103-BLK1:	OC2-MW20C-W-0-234, OC2-MW20B-W-0-235, OC2-MW20A-W-0-236, OC2-MW20A-W-1-237, and OC2-MW9B-W-0-238
C6I1201-BLK1:	OC2-MW9A-W-0-239

Tables

1B:	Data Qualifier Definitions for Organic Data Review

Sampling Issues

The chain of custody (COC) form did not specify the sample to be used for laboratory quality control (QC). The laboratory did perform matrix spike/matrix spike/duplicate (MS/MSD) analyses but it is not known which samples were spiked (see Comment A).

The COC (attached) indicated that ascorbic acid was used as preservative. According to the electronic mail dated 02/28/07 (attached), HCl was also added to the samples. Sample holding time was met based on the use of HCl as preservative.

Additional Comments

As directed by the EPA TOM, a Tier 2 data review was performed (review all QC

results and calibrations, minus calculation check). A Table 1A is not requested.

The raw data for 1,2,3-TCP is missing in the data package; data for initial calibrations, continuing calibrations, run logs, tune reports, quantitation reports, and chromatograms are not provided. Only sample results and QC summaries are provided (attached, pp. 4 and 8 of 10 in data package) for review.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*;
- EPA Method 524.2, *Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry*, Revision 4.1, 1995;
- *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Holding Time/Preservation	Yes	
2.	GC/MS and GC Performance	N/A	
3.	Initial Calibration	N/A	
4.	Continuing Calibration	N/A	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	N/A	
7.	Surrogate	N/A	
8.	Matrix Spike/Matrix Spike Duplicates	No	A
9.	Laboratory Control Samples	Yes	
10.	Internal Standard	N/A	
11.	Compound Identification	N/A	
12.	Compound Quantitation	N/A	
13.	System Performance	N/A	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The matrix spike/matrix spike duplicate recoveries (78%/79%) for 1,2,3-TCP analyzed on 09/11/06 were below the laboratory QC limit of 80-120%. MS/MSD recoveries (97%/112%) for 1,2,3-TCP analyzed on 09/12/06 were within the laboratory QC limit. It is not known which samples were spiked because the sample cross reference for the subcontracted laboratory is not provided. Consequently, the matrix-specific accuracy and precision could not be evaluated.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999.

U The analyte was analyzed for but was not detected above the reported sample quantitation limit.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Matrix spike sample analysis provides information about the effect of the sample matrix on sample preparation and measurement.

17461 Derian Ave #100 Irvine CA 92614 (949) 261 1022 FAX (949) 260 3299
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4687 FAX (909) 370-1046
9830 South 51st St., Suite B-12D, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E Sunset Rd #3, Las Vegas NV 89120 (702) 796-3620 FAX (702) 798-3628

TestAmerica
ANALYTICAL TESTING CORPORATION

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address:	Project/PO Number:
CH2M Hill 3 Hutton Centre Dr Ste 200 Santa Ana, CA 92707	Report Case # RC6580
Project Manager: Dan Jablonski	**Phone Number:** 444 x 74364
Sampler: Dan Jablonski	**Fax Number:**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	NDMA	1,2,3 TCP	Hex Cr	Special Instructions
OC2-MW20C-W-0-234	GW	VOA Poly, Amber	6	9/1/06	0845	Ascorbic Acid	X	X	X	
OC2-MW20B-W-0-235			6		1015		X	X	X	
OC2-MW20A-W-0-236			6		1105		X	X	X	
OC2-MW20A-W-1-237			6		1115		X	X	X	
OC2-MW9B-W-0-238			6		1340		X	X	X	
OC2-MW9A-W-0-239			6		1420		X	X	X	
										HE 9-1-06 1800

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9-1-06 1610	TAI	9/1/06 1610
TAI	9-1-06 1730		
		Hampton	9-1-06 1730

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X 2°C

Note: By relinquishing samples to Test America, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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Rose Fong/R9/USEPA/US
02/28/2007 09:49 AM

To Stan Kolt/R9/USEPA/US@EPA
cc
bcc
Subject Omega Chem TestAmerica CRL response

History: This message has been forwarded.

---- Forwarded by Rose Fong/R9/USEPA/US on 02/28/2007 09:48 AM ----

Victoria.Taylor@CH2M.com
02/28/2007 08:45 AM

To Rose Fong/R9/USEPA/US@EPA
cc Daniel.Jablonski@CH2M.com, tom.perina@ch2m.com
Subject FW: Request for Additional Information

I got a response from Test America on the sample preservation issues. They provided the bottle order that indicates how the bottles for the different test methods were preserved. It appears that the COC was incorrectly filled out.

Hopefully this will be enough to resolve the validation issues. Thanks VT

From: Diane Suzuki [mailto:dsuzuki@testamericainc.com]
Sent: Wednesday, February 21, 2007 3:08 PM
To: Taylor, Victoria/BAO
Cc: Jablonski, Daniel/LAC; Perina, Tom/RIV
Subject: RE: Request for Additional Information

Hi Vikki
I started to go through the various workorders, but I thought it would be easier to send you the bottle order that was submitted for this around of sampling. Please note on the bottle order the HCL preservative with the ascorbic acid is not visable. While the method 524.2 allows sodium thiosulfate and HCl as a dechlorinating agent/preservative pair, we have found that it actually damages the trap on the instrument. For this reason, we have been trying to use Ascorbic Acid and HCl exclusively. The HCl is required for THMs when Ascorbic Acid is used.

For the your COC that has HCL only, I believe that due to space limitation, your sampler may not have entered all of the information.

...diane

GPL Laboratories
7210-A Corporate Court
Frederick, MD 21703
Attention: Tim Mikesell

Project ID: Omega Chemical OU-2 SSID-BC
R06S80
Report Number: IPI0104

Sampled: 09/01/06
Received: 09/01/06

CDHS SRL 524 MODIFIED METHOD FOR 1,2,3-TRICHLOROPROPANE PT/GCMS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IPI0104-01 (OC2-MW20C-W-0-234 - Water)				**Sampled: 09/01/06**				
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-TCP	C6I1103	5.0	ND	1	9/11/2006	9/11/2006	
Sample ID: IPI0104-02 (OC2-MW20B-W-0-235 - Water)				**Sampled: 09/01/06**				
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-TCP	C6I1103	5.0	ND	1	9/11/2006	9/11/2006	
Sample ID: IPI0104-03 (OC2-MW20A-W-0-236 - Water)				**Sampled: 09/01/06**				
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-TCP	C6I1103	5.0	ND	1	9/11/2006	9/11/2006	
Sample ID: IPI0104-04 (OC2-MW20A-W-1-237 - Water)				**Sampled: 09/01/06**				
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-TCP	C6I1103	5.0	ND	1	9/11/2006	9/11/2006	
Sample ID: IPI0104-05 (OC2-MW9B-W-0-238 - Water)				**Sampled: 09/01/06**				
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-TCP	C6I1103	5.0	ND	1	9/11/2006	9/11/2006	
Sample ID: IPI0104-06 (OC2-MW9A-W-0-239 - Water)				**Sampled: 09/01/06**				
Reporting Units: ng/L								
1,2,3-Trichloropropane (123-TCP)	SRL 524M-TCP	C6I1201	5.0	ND	1	9/12/2006	9/12/2006	

TestAmerica - Irvine, CA
Diane Suzuki
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

GPL Laboratories
7210-A Corporate Court
Frederick, MD 21703
Attention: Tim Mikesell

Project ID: Omega Chemical OU-2 SSID-BC R06S80
Report Number: IPI0104

Sampled: 09/01/06
Received: 09/01/06

METHOD BLANK/QC DATA

CDHS SRL 524 MODIFIED METHOD FOR 1,2,3-TRICHLOROPROPANE PT/GCMS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C6I1103 Extracted: 09/11/06										
Blank Analyzed: 09/11/2006 (C6I1103-BLK1)										
1,2,3-Trichloropropane (123-TCP)	ND	5.0	ng/L							
LCS Analyzed: 09/11/2006 (C6I1103-BS1)										
1,2,3-Trichloropropane (123-TCP)	4.42	5.0	ng/L	5.00		88	80-120			
Matrix Spike Analyzed: 09/11/2006 (C6I1103-MS1)					**Source: CPI0173-03**					
1,2,3-Trichloropropane (123-TCP)	39.2	5.0	ng/L	50.0	ND	78	80-120			*M2*
Matrix Spike Dup Analyzed: 09/11/2006 (C6I1103-MSD1)					**Source: CPI0173-03**					
1,2,3-Trichloropropane (123-TCP)	39.4	5.0	ng/L	50.0	ND	79	80-120	1	20	*M2*
Batch: C6I1201 Extracted: 09/12/06										
Blank Analyzed: 09/12/2006 (C6I1201-BLK1)										
1,2,3-Trichloropropane (123-TCP)	ND	5.0	ng/L							
LCS Analyzed: 09/12/2006 (C6I1201-BS1)										
1,2,3-Trichloropropane (123-TCP)	4.47	5.0	ng/L	5.00		89	80-120			
Matrix Spike Analyzed: 09/12/2006 (C6I1201-MS1)					**Source: CPI0252-01**					
1,2,3-Trichloropropane (123-TCP)	48.4	5.0	ng/L	50.0	ND	97	80-120			
Matrix Spike Dup Analyzed: 09/12/2006 (C6I1201-MSD1)					**Source: CPI0252-01**					
1,2,3-Trichloropropane (123-TCP)	55.8	5.0	ng/L	50.0	ND	112	80-120	14	20	

TestAmerica - Irvine, CA
Diane Suzuki
Project Manager